

Name: _____

Date: _____

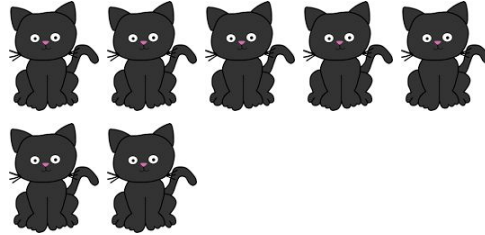
Unit One Practice Test - Part One

1. Use the linear pattern below to answer questions a - d.

Step 0



Step 1



Step 2



Step 3



a. What is the rate of change? _____

b. What is the starting amount? _____

c. Write a linear equation that models the situation. _____

d. Thinking Backwards: How many cats were present in Step Negative 3?

_____ cats

2. Identify the dependent and independent variables in each situation.

a. the height of a baby based upon the number of months

dependent: _____

independent: _____

b. the number of hours worked and the amount of money made

dependent: _____

independent: _____

c. the number of steps and the number of cats (from problem #1)

dependent: _____

independent: _____

3. Writing:

a. Using complete sentences and algebraic terms, define RATE OF CHANGE.

-

-

-

-

b. Using complete sentences and algebraic terms, describe the relationship between a pair of parallel lines.

-

-

-

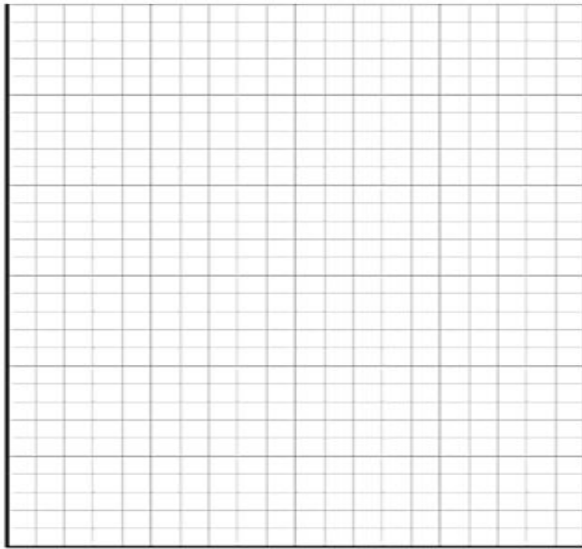
-

4. Khalil increases the number of books he reads per year by three.

a. Fill in the table of values.

# of Years	0	1	2	3	4
# of Books	12				

b. Graph the data. Be sure to label your axes.



c. Identify the dependent and independent variables.

dependent: _____ independent: _____

d. Write a linear equation that models the situation.

5. Identify the slope and y-intercept of each line.

a. $y = -x - 9$

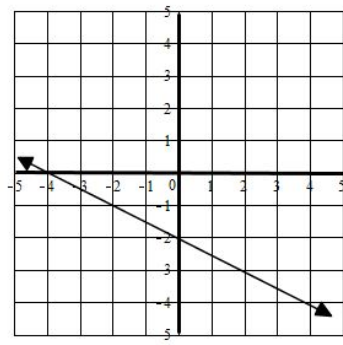
slope = _____ y-int = _____

b. $y = \frac{1}{7}x$

slope = _____ y-int = _____

c. $y = x + 10$

slope = _____ y-int = _____



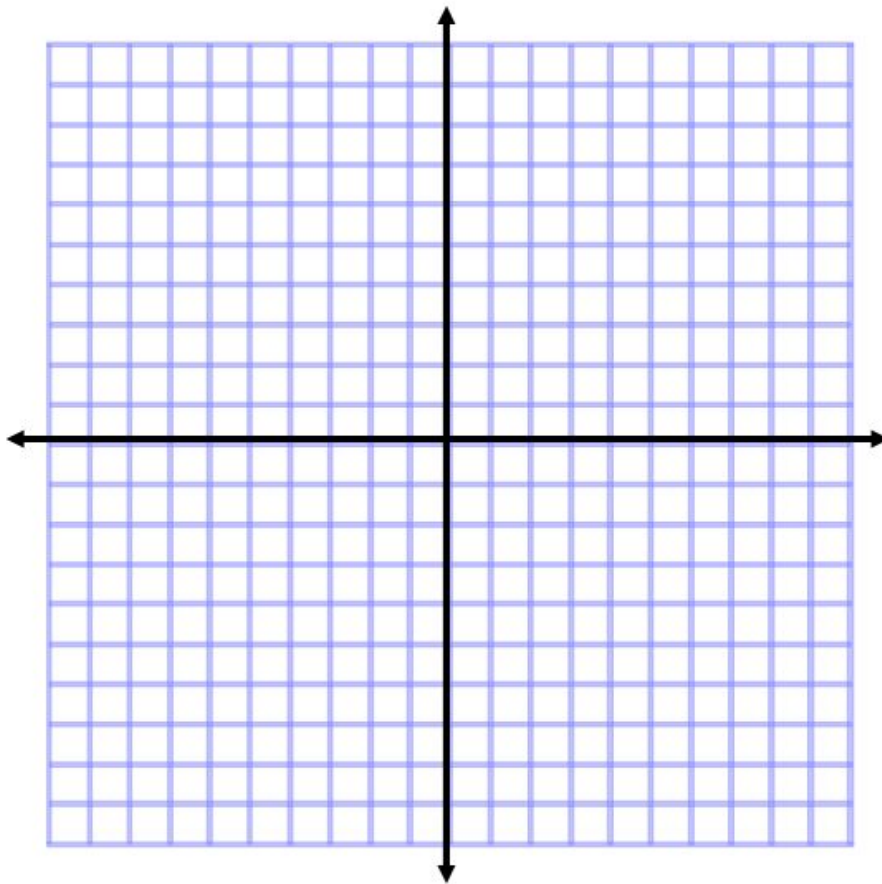
d. slope = _____ y-int = _____

6. Graph each equation on the coordinate plane below. Be sure to extend and name your lines.

$$y = x + 8$$

$$y = -2x$$

$$y = \frac{1}{2}x - 3$$



7. Aaron has \$10,000 in his bank account today and will be saving \$4,000 per year.

a. What is the starting amount? _____ b. What is the rate of change? _____

c. Write an equation in slope intercept form to model this situation.

d. What will Aaron's total amount of money be after seven years of saving?

\$ _____

Part Three: Writing Equations of Lines (2 points each): Write the equations of the lines in slope-intercept form. Write the sum of five and zero to the left for an extra credit point.

6. slope = 3; y-int = 1

7. slope = -1; y-int = $\frac{1}{2}$

8. y-int = -3; slope = -2

9. the equation of the line that passes through (5, 2) and (7, 6)

10. the equation of the line that passes through (-1,-5) and (0, 3)

--	--

Part Four: Parallel Lines (3 points)

11. Parallel lines have the same _____, but different
_____.

12. Write the equation of the line in slope-intercept form that is parallel to $y = -2x + 9$ and passes through the point $(4, -3)$.